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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 021102C]

Taking and Importing of Marine Mammals

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of proposed organized decision process; request for comment.

SUMMARY: The Dolphin Protection Consumer Information Act (DPCIA) requires the Secretary of Commerce (Secretary), subject to certain conditions, to amend the "dolphin-safe" labeling standard so that tuna from the eastern tropical Pacific Ocean (ETP) purse seine fishery caught in sets in which no dolphins were killed or seriously injured may be labeled "dolphin-safe." The Secretary is required by the Marine Mammal Protection Act (MMPA) to conduct specified scientific research and to make a finding, based on the results of that research, information obtained under the International Dolphin Conservation Program (IDCP), and any other relevant information, as to whether the intentional deployment on or encirclement of dolphins with purse seine nets is having a "significant adverse impact" on any depleted dolphin stock in the

ETP. Significant adverse impact is nofurther defined in the statute.

In this notice, NMFS proposes the types of information that will be available to the Secretary and the context in which the Secretary will consider the information in arriving at a final finding regarding significance. NMFS is seeking comments on the proposed decision-making process at this time.

DATES: Comments on this notice must be received by [Insert date 60 days after date of filing with the Office of the Federal Register]. The deadline of May 1, 2002, to submit to NMFS scientific information available for the Secretary s consideration, is final.

ADDRESSES: Written comments on the proposed decision process should be sent to the Regional Administrator, Southwest Region, NMFS, 501 W. Ocean Boulevard, Suite 4200, Long Beach, California, 90802-4213. Comments may also be sent via facsimile at 562-980-4027. Comments will not be accepted if submitted via electronic mail or the Internet.

Scientific information for the Secretary sconsideration should be sent to the Director, NMFS Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA, 92037. Comments will not be accepted if submitted via electronic mail or the Internet.

FOR FURTHER INFORMATION CONTACT: Nicole R. Le Boeuf, Southwest Fisheries Science Center, NMFS, 858-546-7147.

SUPPLEMENTARY INFORMATION:

Background

The MMPA, 16 U.S.C. 1361 et seq., as amended by the International Dolphin Conservation Program Act (IDCPA), (Public Law 105-42), requires the Secretary to conduct scientific research on dolphin stocks in the ETP. The DPCIA (16 U.S.C. 1385), as amended by the IDCPA, requires the Secretary to make a finding, based on the scientific research, information obtained under the IDCP, and any other relevant information, as to whether the intentional deployment on or encirclement of dolphins with purse seine nets is having a significant adverse impact noany depleted dolphin stock in the ETP. There are three depleted dolphin stocks in the ETP: northeastern offshore spotted, eastern spinner, and coastal spotted.

The Secretary s finding will determine thedefinition of dolphin-safe as applicable to tuna harvested by purse seine vessels with carrying capacities of greater than 400 short tons operating in the ETP. Refer to the Federal Register Notice at 64 FR 24590 (May 7, 1999), for more information on the dolphin-safe labeling standard.

The DPCIA requires the Secretary to make an initial finding regarding the dolphin-safe label in 1999, and a final finding by December 31, 2002. On April 29, 1999, NMFS made an initial finding that there was insufficient evidence at that time to determine whether the chase and encirclement of dolphins by the tuna purse seine fishery was having a significant adverse impact on any depleted dolphin stock in the ETP (NMFS 1999) (64 FR 24590; May 7, 1999). The U.S. District Court for the Northern District of California in Brower v. Daley, 93 F. Supp. 2d 1071 (N. D. Ca. 2000), set aside this determination, and that finding was affirmed by the Ninth Circuit Court of Appeals in Brower v. Evans, 257 F. 3d 1058 (9th Cir. 2001). As a result, the labeling standard (from (h)(2) of the DPCIA) is in effect.

For the initial finding, NMFS had the following scientific information available: dolphin abundance data from NMFS 1998 and previous surveys, mortality and abundance estimates based on tuna vessel observer data, a comprehensive review of scientific literature on stress in marine mammals, and then current and historical environmental information from the ETP. The final stages of the mandated IDCPA research, which will soon be complete, are expected to provide substantial additional information for the final finding. Some of this new information

will generally include: dolphin abundance data from 1999 and 2000, updated mortality estimates based on observer data, an updated review of scientific literature on stress in marine mammals, results from a necropsy study of dolphins killed in the fishery, a review of historical demographic and biological data related to dolphins involved in the fishery, results from the chase-recapture experiment, as well as information regarding variability in the biological and physical parameters of the ETP ecosystem over time.

To accommodate this newly available scientific and other relevant information and based on input received on the initial finding in 1999, NMFS is revising its decision-making process for the final finding. The proposed organized decision process provides the Secretary with guidance for systematically reviewing the different types of information in reaching a final decision and would be consistent with the decisions of the U.S. District Court and Ninth Circuit Court of Appeals, which are referenced above. In order to provide the public with an opportunity to review and give input regarding the Secretary s decision framework, NMFS is soliciting public comment on the proposed decision process described here.

Overview: How to Determine Significance

It is widely known that the tuna fishery in the ETP, using intentional deployment on or encirclement of dolphins in tuna purse seine nets, causes some dolphin mortality. The question for the Secretary is whether or not interaction with the fishery is having a significant adverse impact on any depleted dolphin stock in the ETP. There is also general agreement that the number of mortalities that can be sustained by the dolphin stocks before it becomes significant depends on the state of the ETP ecological structure for dolphins. In essence, if the ETP carrying capacity for dolphins has declined or the ecological structure of the ETP has changed, dolphin stocks could sustain fewer mortalities than if the carrying capacity has remained constant or increased or if the ecological structure of the ETP has not changed. Moreover, because it is clear that direct (and potentially some level of indirect) mortality can be attributed to the fishery, the population growth rates of the dolphin stocks need to be sufficient so as to not risk recovery. The remainder of this notice describes how those factors will be assessed by the Secretary in making the final finding regarding whether the tuna purse seine fishery is having a significant adverse impact on any depleted dolphin stock in the ETP.

The Role of Direct Mortality in the Decision Process

To assist the Secretary in reaching a final finding in 2002, NMFS is examining various potential effects of the tuna purse seine fishery on depleted ETP dolphin stocks. Information on direct mortality will be considered, along with quantifiable estimates of indirect mortality and other effects, by the Secretary in making the final finding.

The Role of Indirect Mortality in the Decision Process

While direct mortality by the tuna fishery is a known impact on the dolphin stocks, there are several other possible means by which the fishery could be impacting the stocks. These possible means are often not observed (sometimes termed cryptic or indirect) and may include: (1) delayed mortality from stress effects caused by chase and capture; (2) impaired reproduction from stress effects resulting from chase and capture; (3) calf mortality owing to cow-calf separation during fishing operations; (4) social structure disruption attributable to chase and capture; (5) facilitated mortality by making the dolphins more vulnerable to predation after the chase; and (6) interference with dolphin feeding. To measure the impact of indirect effects, the MMPA specifically requires the Secretary to conduct stress studies, including: (1) a review of stress-related research; (2) a three-year necropsy study of dolphins killed in the tuna

fishery; (3) a one-year review of relevant historical demographic and biological data; and (4) an experiment involving the repeated chasing and capturing of dolphins by means of intentional encirclement. Studies conducted under the IDCPA research program, information obtained under the IDCP, and other available scientific information should provide insights into the nature and the magnitude of fishery-induced impacts related to these specific sources in addition to those caused by direct mortality. Upon reviewing this information, the Secretary will determine whether or not the intentional deployment on or encirclement of dolphins with purse seine nets is having a significant adverse impact on any depleted dolphin stock in the ETP.

The Role of Ecosystem Changes in the Decision Process

Because substantial changes in an ecosystem can have profound effects on the ability of a population or stock of organisms to thrive and/or recover from a previous period of overexploitation (such as with depleted stocks), the Secretary will consider scientific evidence of whether a significant ecosystem change has occurred in the ETP. Particularly, the Secretary will determine whether any change is likely to have increased or decreased (1) the ecological structure or carrying capacity for the three depleted stocks or (2) the rate at which

the stocks are able to reach their optimum sustainable population (OSP) level. OSP is the level at which the number of animals in a population are sufficient to achieve the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

Methods For Determining Significance of Estimated Mortality

To assess the significance of estimated mortality in the fishery, the Secretary will use established methods of managing marine mammal mortality under the MMPA. These mortality standards may include the Potential Biological Removal (PBR) and the Stock Mortality Limit (SML) systems, as well as other standards as appropriate.

NMFS relies on the PBR system, developed as a tool for implementation of the MMPA, for regulating incidental mortality of marine mammal stocks by U.S. fisheries other than the tuna purse seine fishery in the ETP. The PBR system was developed in a series of workshops with participation of experts from NMFS and was refined following input from the Marine Mammal Commission, outside experts, and the public. The PBR level of a marine mammal stock is the maximum number of animals, in addition to natural mortalities, that may be removed while allowing that

stock to reach or maintain OSP. Although ETP dolphin mortality is generally not managed under this system, PBR serves here as a valuable mortality standard to measure significance of mortality in marine mammal-fishery interactions because it is a risk averse method of incorporating uncertainty in management models for marine mammals. The formula for calculating PBR can be found in Wade and Angliss (1997), available at http://nmml.afsc.noaa.gov/library/gammsrep/gammsrep.htm.

In examining estimated mortality, the Secretary may also consider other mortality standards, such as those utilized by the SML system, to manage fishery-induced dolphin mortality levels in the ETP. The SML system uses substantially lower limits for dolphin mortality than the PBR approach. The SML system was conceived by nations participating in the IDCP and several non-governmental conservation organizations, in consultation with the Inter-American Tropical Tuna Commission. It is now being implemented by the signatory nations of the Agreement on the International Dolphin Conservation Program (AIDCP). Pursuant to the MMPA, as amended by the IDCPA, the SMLs (per-stock per-year dolphin mortality limits) beginning in calendar year 2001 are set at less than or equal to 0.1 percent of the minimum population estimate of each dolphin stock. Additional information on SMLs

can be found in Annex III of the AIDCP, available at: http://www.nmfs.noaa.gov/prot_res/PR2/Tuna_Dolphin/AIDCP.html

The established standards of PBR and SML are incorporated into the Secretary s organized decision process to assess whether or not the intentional deployment on or encirclement of dolphins with purse seine nets is having a significant adverse impact on any depleted dolphin stock in the ETP. Similar to previous work (Gerrodette 1996), NMFS will make calculations of PBR levels and SMLs for the final finding, based on the recent abundance estimates from the ETP surveys conducted under the IDCPA research program. Further discussion of how the PBR, SML, or other appropriate mortality standards will be used in the final finding decision process can be found below.

The Organized Decision Process

NMFS proposes an organized decision process to provide the Secretary with a systematic approach for evaluating multiple types of data in a situation complicated by uncertainty. The decision process described here consists of separate measures of fishery and environmental effects on dolphins that the Secretary will consider in reaching a final decision on whether or not the fishery is having a significant adverse impact on any depleted dolphin stock in the ETP.

The proposed decision process consists of a series of questions that the Secretary will consider in reaching a final decision. These questions are as follows:

(1) Ecosystem Question

(2) Direct Mortality Question

(3) Indirect Effects Question

(4) Abundance Question

The answer to the Ecosystem Question will provide an ecological context (as described above) for the Secretary to consider the remaining three questions. For the Direct Mortality and the Abundance Questions, the proposed decision process provides basic thresholds that will result in a yes or no answer to the questions. If the Secretary answers yes to either question, the Secretary will conclude that the fishery is having a significant adverse impact. For the Ecosystem and the Indirect Effects Questions, the Secretary will review the available information as well as the evidence presented by members of two expert panels (see below) in reaching final conclusions.

Details on how the Secretary will consider the four questions are as follows:

(1) The Ecosystem Question. During the period of the fishery, has the carrying capacity of the ETP for dolphins declined substantially or has the ecological structure of the ETP changed substantially in any way that could impede depleted dolphin stocks from growing at rates expected in a static ecosystem? Or has the carrying capacity increased substantially or has the ecological structure changed in any way that could promote depleted dolphin stocks to grow at rates faster than expected in a static ecosystem?

To determine the answer to these questions, the Secretary will consider scientific information collected and/or evaluated by NMFS, as well as information rendered individually from members of a panel of independent scientific experts in biological oceanography and ecology (the Ecosystem Panel). The panel members assessments will be based on their review of relevant oceanographic and ecosystem data (physical and biological habitat and distribution, abundance, and ecology of other organisms in the ETP) from the period of the fishery.

(2) The Direct Mortality Question. For any depleted stock, does the estimate of the total fishery-attributed dolphin mortality, obtained by adding together estimates of direct mortality and, where appropriate, quantifiable levels of indirect mortality,

exceed the mortality standard considered appropriate by the Secretary?

NMFS scientists will calculate from the three recent abundance estimates (1998, 1999, 2000) the PBR levels for each stock and provide them, along with measures of uncertainty, to the Secretary. Estimates of direct mortality and indirect mortality (where appropriate) will be compared to the PBR and other mortality standards to be considered by the Secretary. The Secretary will also take into account the assessments from the Ecosystem Panel members regarding possible changes in the carrying capacity and/or the ecosystem structure of the ETP. The Secretary will consider the information with the understanding that adverse effects from unfavorable changes in the ecosystem may require the use of mortality standards below PBR levels. When evaluating the impact of mortality levels on dolphin stocks, the Secretary may also consider the SML standard as well as other standards as appropriate.

(3) The Indirect Effects Question. For each stock, is the estimated number of dolphins affected by the tuna fishery, considering data on sets per year, mortality attributable to the fishery, indicators of stress in blood, skin and other tissues, cow-calf separation and other relevant indirect effects

information, at a level that is cause for concern (how and to what degree)?

The answer to this question will be based on information collected and/or evaluated by NMFS, as well as assessments from members of a panel of independent scientific experts in veterinary science, physiology, and other stress-related fields (Indirect Effects Panel). The panel members assessments will be based on their review of relevant behavioral, ecological, immunological, pathological, and other information with respect to the dolphin stocks involved. For this question, the Secretary will also consider the evidence presented by the Ecosystem Panel members regarding possible changes in the carrying capacity and/or the ecosystem structure of the ETP and how it relates to adverse impacts attributable to the fishery on dolphin stocks as described above.

(4) The Abundance Question. For each depleted dolphin stock, is the estimate of the observed population growth rate sufficient so as not to risk recovery or appreciably delay recovery to its OSP level?

To answer this question, the Secretary will consider results from calculations in which NMFS scientists fit a population model to the time series of NMFS research vessel abundance estimates

using the time series of estimates of the incidental mortality from the tuna vessel observer data (TVOD). If pending analysis indicates that the time series of relative abundance estimates from the TVOD are sufficiently reliable, they will also be used to estimate trends in dolphin abundance. NMFS scientists will estimate growth rates for each dolphin stock and determine measures of uncertainty for each estimate and provide this information to the Secretary. The Secretary will also take into account assessments from the members of the Ecosystem Panel when considering the estimated growth rates.

Appointment of Scientific Expert Panels

As indicated above in explanations of the Ecosystem and the Indirect Effects Questions, the Secretary will appoint two panels of independent scientific experts to provide individual assessments in determining the answers to these two questions as a part of the organized decision process. The independent experts will make their conclusions based on a review of the results from the IDCPA research program, information obtained under the IDCP, and other relevant information. The use of independent expert judgment in obtaining guidance on complex and highly technical bodies of information, such as those relevant to the Ecosystem and the Indirect Effects Questions, is consistent

with science-based, decision-making processes like that proposed here. NMFS plans to select panelists in close consultation with professional scientific organizations. NMFS will publish criteria for panelist selection and the selection process in the Federal Register in the near future.

Consideration of Available Scientific Information

The Secretary will make the final finding based on information available from studies conducted under the IDCPA research program, information obtained under the IDCP, and other available scientific information. All quantitative information provided to the Secretary will be accompanied by associated statistical measures of certainty and confidence.

While NMFS is conducting much of the research that will form the basis of the final finding, there may be other sources of information that the Secretary will consider pursuant to the MMPA. NMFS will need time to properly assess and evaluate information to be considered by the Secretary, therefore, all other information must be submitted to NMFS by May 1, 2002. The weight given scientific information will be determined by the degree to which the scientific information meets the following elements: (1) relevant, (2) timely, (3) independently peer-reviewed, and (4) available to NMFS for verification.

Scientific information means the results of properly designed scientific research. Author(s) means the originator(s) of the scientific information whose names appear on the written document. Independent(ly) means that the action was undertaken by one or more individuals that do not have any fiduciary, supervisory, subordinate or other geographically close organizational relationship to the author(s). Peer means a scientist practicing in the same or very closely related field of study as the scientific information. Relevant means the scientific information is pertinent to the use of the information. Timely means the relevancy of scientific information least degraded by the passage of time. Passed independent peer review means the scientific information has been published in a refereed scientific journal in its field or independently read and criticized in writing by at least three peers; the criticism was disposed of either by acceptance or rebuttal, as appropriate, by the author(s); and the disposition of the criticism by the author(s) was independently determined to be appropriate and adequate. Verification means that the data, procedures, methods, equipment, mathematics, statistics, models, computer software and anything else used to produce the scientific information are to be submitted to NMFS in a timely

manner such that the scientific information may be replicated or rejected. For the final finding, in a timely manner means as of May 1, 2002.

Deadline for Submission of Public Comments

NMFS is soliciting public comment on the organized decision process proposed in this notice and will consider public comments in the development of the final decision process if received by [Insert date 60 days after date of filing with the Office of the Federal Register]. See ADDRESSES above.

Dated: February 12, 2002

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William T. Hogarth, Assistant Administrator for Fisheries, National Marine Fisheries Service.

Literature Cited

Gerrodette, T. 1996. A comparison of mortality limits for eastern tropical Pacific dolphins under the Declaration of Panama and under Potential Biological Removal (PBR) management. NMFS Administrative Report LJ-96-18. Available from the Southwest Fisheries Science Center, P.O. Box 271, La Jolla, CA 92038-0271 or at http://swfsc.nmfs.noaa.gov/IDCPA/IDCPAfront.html.

NMFS 1999. Report to Congress on the initial finding, required under the Marine Mammal Protection Act of 1972 as amended by the International Dolphin Conservation Program Act of 1997, regarding whether the intentional deployment on or encirclement of dolphins with purser seine nets is having a significant adverse impact on any depleted dolphin stock in the eastern tropical Pacific Ocean. Report prepared by the Southwest Fisheries Science Center, National Marine Fisheries Service, National Oceanic Atmospheric Administration. 60 pp. Available from the Southwest Fisheries Science Center, P.O. Box 271, La Jolla, CA 92038-0271 or at http://swfsc.nmfs.noaa.gov/mmd/congress/congress.htm.

Wade, P.R. and R.P. Angliss. 1997. Guidelines for assessing marine mammal stocks: Report of the GAMMS workshop April 3-5, 1996, Seattle, Washington. U.S. Department of Commerce, NOAA Technical Memorandum NMFS-OPR-12. This document is available at: http://nmml.afsc.noaa.gov/library/gammsrep/gammsrep.htm.